ABSTRACT

A substrate (1) for spatially selective micron and nanometer scale deposition and/or reaction, which has a support (3), a conductive layer (5) on the support, a dielectric layer (7) to hold an electrostatic charge pattern such as a photoconductive layer of a material which dissipates an electric charge upon receiving incident radiation thereon, and a chemically functional layer (9), such that electrostatic charge patterns may be formed in a predetermined manner upon the substrate to influence the movement of charged droplets in an emulsion (15) on the substrate. The chemically functional layer either provides a surface for chemical functionalisation of the substrate or prevents access or reaction to the dielectric or photoconductive layer.

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